

**REMARKS**

Claims 1 and 6 are pending in this application. By this Amendment, claim 1 is amended and claims 4 and 5 are canceled without prejudice to or disclaimer of the subject matter therein. Support for the amendments to claim 1 can be found in the specification as originally filed and in original claims 1, 4 and 5. No new matter is added by these amendments.

**I. Claim Rejections**

The Examiner rejects claims 1 and 4-6 under 35 U.S.C. §103(a) over U.S. Patent No. 6,083,774 to Shiobara et al. ("Shiobara 774") in view of U.S. Patent No. 6,001,901 to Shiobara et al. ("Shiobara 901"). Applicants respectfully traverse this rejection with respect to claim 1 and 6, claims 4 and 5 having been canceled herein.

Independent claim 1 sets forth, in pertinent part, an "anisotropic conductive adhesive material comprising at least one curable resin and silica particles, wherein: ... the content of the silica particles is 35 to 60 vol%, and ... wherein the anisotropic conductive adhesive material further comprises conductive particles having a mean particle size of 0.5 to 8.0  $\mu\text{m}$ ; and wherein the anisotropic conductive adhesive material has a coefficient of moisture absorption in a 85% RH, 85°C atmosphere is 1.5 wt % or less." Claim 6 depends from claim 1 and includes all of the limitations thereof.

The claimed anisotropic conductive adhesive material includes silica particles having a specific surface area between 11 and 17  $\text{m}^2/\text{g}$  in an amount of 35 to 60 vol%, and also includes conductive particles having a mean particle size of 0.5 to 8.0  $\mu\text{m}$ ; these conductive particles are much smaller than the electrodes to be connected. Thus, most of the electrode surfaces are contacted with molding resin. By providing a molding resin having a coefficient of moisture absorption in a 85% RH, 85°C atmosphere of 1.5 wt % or less, as claimed, it is possible to avoid moisture penetration to an electrically connected portion between a wiring

substrate and an electronic device. *See* Specification, page 10, lines 12-20. The coefficient of moisture absorption can be correlated to a volume percent of silica particles.

The Examiner asserts that Shiobara 774 discloses an adhesive composition including an inorganic filler having a specific surface area of 3.5 to 6.0 m<sup>2</sup>/g in an amount of 100 to 550 parts by weight per 100 parts by weight of resin and curing agent. The Examiner concedes that Shiobara 774 fails to disclose an inorganic filler, such as silica particles, having a specific surface area of from 11 to 17 m<sup>2</sup>/g, but asserts that it would have been obvious to incorporate the ultrafine silica having a specific surface area of 10 to 40 m<sup>2</sup>/g disclosed in Shiobara 901 in the adhesive composition of Shiobara 774 in a suitable amount in terms of volume. However, Applicants submit that neither reference teaches or suggests employing fillers in the amount of 35 to 60 vol%, as set forth in claim 1, or providing an anisotropic conductive adhesive material having the claimed coefficient of moisture absorption, which can be correlated to the vol% of fillers. There is no indication in the Office Action or references that the fillers disclosed in Shiobara 901 potentially having a specific surface area between 11 and 17 m<sup>2</sup>/g are present in an amount remotely approximating 35 to 60 vol%, as recited in claim 1. Moreover, there is no suggestion that the amount of fillers disclosed in Shiobara 901 potentially having a specific surface area between 11 and 17 m<sup>2</sup>/g could or should be modified to meet the recitation of claim 1.

As both Shiobara 774 and Shiobara 901 fail to teach or suggest an adhesive material including silica particles having a specific surface area between 11 and 17 m<sup>2</sup>/g in an amount of 35 to 60 vol%, the combination of references fails to teach or suggest each and every feature of claim 1.

Claim 1 would not have been rendered obvious by Shiobara 774 and Shiobara 901. Claims 4-6 depend from claim 1 and, thus, also would not have been rendered obvious by

Shiobara 774 and Shiobara 901. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

**II. Conclusion**

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1 and 6 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



James A. Oliff  
Registration No. 27,075

Julie M. Lake  
Registration No. 51,156

JAO:JML/jml

Attachment:  
Petition for Extension of Time

Date: September 18, 2006

**OLIFF & BERRIDGE, PLC**  
**P.O. Box 19928**  
**Alexandria, Virginia 22320**  
**Telephone: (703) 836-6400**

<p>DEPOSIT ACCOUNT USE AUTHORIZATION Please grant any extension necessary for entry; Charge any fee due to our Deposit Account No. 15-0461</p>
--